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Request for Participation #4

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Environmental Impact Statement for a Program of Vegetation Management

A *New Program* for managing vegetation is being developed by the Pacific Northwest Region (Oregon and Washington) of the USDA Forest Service. This **Request for Participation** is the **Fourth** in a series of requests to get your help in the development of the environmental impact statement (EIS) for the new program. This Request gives you more information on the eleven work programs the EIS will cover. We hope to give you a better understanding of some of the activities within those programs that traditionally involve managing vegetation. We want you to understand how decisions made in this EIS may affect those activities. We have also made some changes in our EIS schedule. Please check the process time-line on the inside cover. At this point, we are just sharing information rather than requesting a formal response...but if you have comments, we'd like to hear from you.

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Pacific Northwest Region
Vegetation Management
Environmental Impact Statement
The Process

1. PLANNING & ORGANIZING

- Process Management Meeting 5/86
- Recommendations
- Decision
- Notice of Intent 6/86
- Scoping
- Management Objectives for Environmental Analysis 7/86

2. ENVIRONMENTAL ANALYSIS

- Interdisciplinary Team Meeting #1 Scoping 8/86
- Tight Outline of E.I.S. Issues Alternatives Data Needs 9/86
- Public Participation Internal Review 10/86
- Interdisciplinary Team Meeting #2 Environmental Analysis
- Rough Draft of E.I.S. and Outline of Record of Decision 3/87
- Internal Review, Public Participation 4/87
- Interdisciplinary Team Meeting #3 Documentation 5/87
- Public Release of Draft E.I.S. 6/87

3. DECISION MAKING

- Public Comment Period Internal Review 6/87
- Analysis of Comments
- Interdisciplinary Team Meeting #4 Response to Comments 9/87
- Internal Review Final E.I.S. Record of Decision 10/87
- Decision by Responsible Official 11/87
- Public Release of Final E.I.S and Record of Decision (or New Draft E.I.S) (or Supplement) 12/87
- Start of Vegetation Management Activities Spring '88

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PROGRAMS

Introduction

In past Requests for Participation we have often listed the eleven forest service programs the Vegetation Management EIS will affect:

- plantation site preparation
- tree genetics activities
- recreation facilities maintenance
- noxious weed control
- fire management activities
- right-of-way maintenance
- conifer release
- research
- range improvement
- wildlife habitat improvement
- facilities maintenance

This time, we'd like to give you some more background on these programs. We think this will give you a better understanding of:

- what the programs are and what kinds of work we do within them;
- how the programs are related to vegetation management;
- and most importantly, how the EIS will affect the way decisions are made in the program areas.

For some of the programs, decisions made in the EIS will be more significant than others. For example, in the noxious weed control program, almost all the actions we take are related to vegetation management. Decisions in the EIS will definitely have effects on how we manage noxious weeds in the future. For other programs, like recreation and facilities maintenance, vegetation management is only one of the many activities that take place. In these programs, decisions made in the EIS may not result in noticeable changes in day-to-day operations.

The final EIS for vegetation management provides broad decisions and standards and guidelines for directing projects that take place "on-the-ground". Project level managers will use the broad EIS decisions to guide site-specific decision-making for actual projects in the field.

Site Preparation and Release

Reforestation site preparation and release work are a significant part of the Forest Service effort to maintain young timber stands. Both take place in the first five to ten years of the life of managed tree stands. In both activities, prompt attention allows flexibility in treatment method selection and a high probability of meeting objectives.

Site preparation is often necessary to successfully reforest timber stands. It commonly involves reducing competing vegetation in conifer plantations so new trees can be successfully planted, or can seed-in naturally. In the past, site preparation work was done on 45,000 to 75,000 acres annually through a variety of techniques. These include machine piling brush and debris, using domestic livestock to reduce grass competition, burning of logging slash and before the 1984 court injunction, spraying of herbicides.

In conifer **plantation release,** the density, composition, and vigor of competing vegetation is controlled while the young seedlings are getting a start. The objective of release is to promote satisfactory development and survival of desired young trees. Competing brush and weeds were often grubbed or pulled out, and some vegetation was hand-felled and cut surfaces injected with systemic herbicides.

Past plantation release treatment work averaged 30,000 to 55,000 acres per year. Aggressive plantation establishment and release is normally limited to productive lands suitable for intensive management.

Noxious Weed Control

Noxious weeds, defined by both federal and state laws, are species of plants that cause disease or are injurious to crops, livestock, or land. Overall goals of programs to control noxious weeds are to limit the spread of such plants, reduce their numbers to a point where they cause no significant economic damage, or, where feasible, eradicate them. Techniques used to control noxious weeds include mowing or cutting target species; using natural predators (such as insects) to eat foliage or reproductive parts of the weeds; and–before the injunction–aerial or spot spraying.

Since noxious weeds fail to respect state, administrative, or property boundaries, close coordination among federal, state, and county agencies, and private land owners is crucial for any effective noxious weed control program.

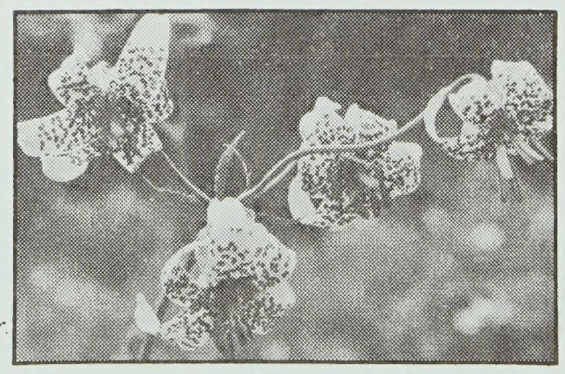
Tree Genetics

As the demand for a diversity of forest products increases, the land base for producing timber products has decreased. Thus, maintaining the productivity of the site while producing the maximum possible wood fiber from the available acres is essential.

The genetics program was born of this need, and is part of an integrated Regional strategy to maximize productivity in both the long and short run. Managers of other public and private timber lands cooperate in this program as a further measure to assure a continued flow of timber products.

Another purpose of the genetics program is to improve the quality of forest products. Based on the presence of specific desired traits–rapid growth, high quality wood, resistance to insects and disease, or some combination of these– individual trees are selected to be "parents" for future crops of trees.

The intent of the genetics program is to capture the genetic material responsible for controlling the desired traits. To assist in meeting this goal, vegetation management is used to eliminate the effect of unequal competition when comparing different genetically superior seedlings with one another. Brush and shrubs are cleared from around "parent" trees, and weeds and grasses are disced and cleaned from seed orchards.



A Tiger Lily flower.

Wildlife Habitat Improvement

The principal objective of the wildlife habitat improvement program is to protect and enhance an appropriate variety, amount, and distribution of habitat for viable populations of native wildlife, fish, and plants. Maintaining populations of threatened, endangered, and sensitive species is particularly emphasized. To a large degree, these objectives reflect animal and fish population goals established in coordination with state fish and wildlife agencies.

Vegetation management for habitat improvement is usually done by coordinating resource project activities, or through related mitigation measures. It also is accomplished through direct habitat improvement projects. Direct habitat improvement work might include "underburning" living stands of trees to improve the forage beneath it. A wide variety of wildlife species–from rare butterflies to grizzly bears–benefit from different habitat improvement techniques, however most of these activities are designed to provide improved forage and browse for elk and deer.

Rights-of-Way Maintenance

Rights-of-way maintenance is a program for managing transportation and communication links that are important to parts of the region outside the National Forests, as well as within them. These rights-of-way include thousands of miles of roads–from state highways to logging roads actually managed by the Forest Service–that cross National Forest land. They also include public and private utility corridors, railroad rights-of-way, and recreation trails.

All require varying amounts of regular treatment to provide safe visibility for driving; wildfire protection; or to maintain the road, corridor, or trail in a usable condition. This often involves cutting brush or trees, and sometimes burning the resulting slash. Before the injunction on herbicide use, chemical treatment was also used. Coordination between roadside treatment and the noxious weed program is important because vehicles traveling along roads, easily carry seeds and spread noxious weeds over large areas.

Fire Management Activites

Fire management in the Pacific Northwest includes all activities intended to protect resources and other values from wildfire. The Forest Service fire management program covers a variety of activities including, fire prevention and suppression, management of slash and prescribed fire.

In this environmental impact statement, the management of slash and other woody residues will be addressed along with the precribed fire program. Fire prevention, detection, and suppression will not.

Prescribed fire is used to accomplish a variety of resource objectives including reducing competing vegetation, wildfire protection, and wildlife habitat improvement. An important issue associated with use of prescribed fire is the impact of burning on air quality and air quality-related values–for example,visibility. The Forest Service has the responsibility to manage activities on National Forest land so air quality meets or exceeds the applicable federal, state and local air quality standards and regulations. The ability to meet the state air quality standards will be comprehensively addressed in the EIS.

Range Improvement

On National Forest System lands in the Pacific Northwest, domestic livestock graze on about 6.7 million acres in 807 grazing allotments. Under the range management program, these allotments are managed to meet established objectives–for example, improved range condition or improved watersheds and wildlife habitat.

Shrubs or trees such as sagebrush, rabbitbrush, and western juniper tend to increase on rangelands where fire has been excluded or where past overgrazing has occurred. These tend to increase at the expense of more palatable grasses and forbs, and are common targets of vegetation management.

To favor the grasses and forbs, a wide variety of techniques are used. One of the most popular and effective techniques is the use of prescribed fire. Others include, manually "grubbing out" unwanted vegetation, and "chaining" - using tractors to pull heavy anchor chains through stands of brush to partially set the brush back, thus giving desired species a chance to grow in the new openings.

Recreation and Facilities Maintenance

The **recreation program** is designed to provide as many opportunities as possible for forest visitors to know and experience nature through outdoor recreation. There are over 1,900 developed recreation sites (including permittee operations and privately-owned sites) within National Forest boundaries.

Developed sites are managed to provide a safe, healthful, aesthetic, nonurban atmosphere. Vegetation management is part of the operation and maintenance of these recreation sites. Grass and brush is trimmed or removed, and trees that are hazardous because of damage or decay are felled and removed. Vegetation management in and around recreation facilities is used to provide for public safety, reduce fire hazards, improve visibility and access, and to control poisonous plants. For each recreation site, a vegetation management "prescription" designed to create and maintain a natural-looking environment is prepared.

Management of administrative facilities is work done to provide cost-effective, safe, functionally-efficient buildings and related structures for conducting the work of the Forest Service.

An "administrative facility" is a single or group of improvements constructed to shelter or to support Forest Service program activities. Facilities include ranger stations, lookout towers, leased offices, work centers, housing areas, visitor centers, and research laboratories. Just as it might do in your own yard, vegetation around Forest Service work buildings has the potential to grow "out of control", sometimes leading to hazardous condition.

There are about 200 of these Forest Service work sites in the Pacific Northwest. Each facility has a site development plan–including a landscape management plan–that defines areas where vegetation will be maintained or controlled, and how to do so.

Research

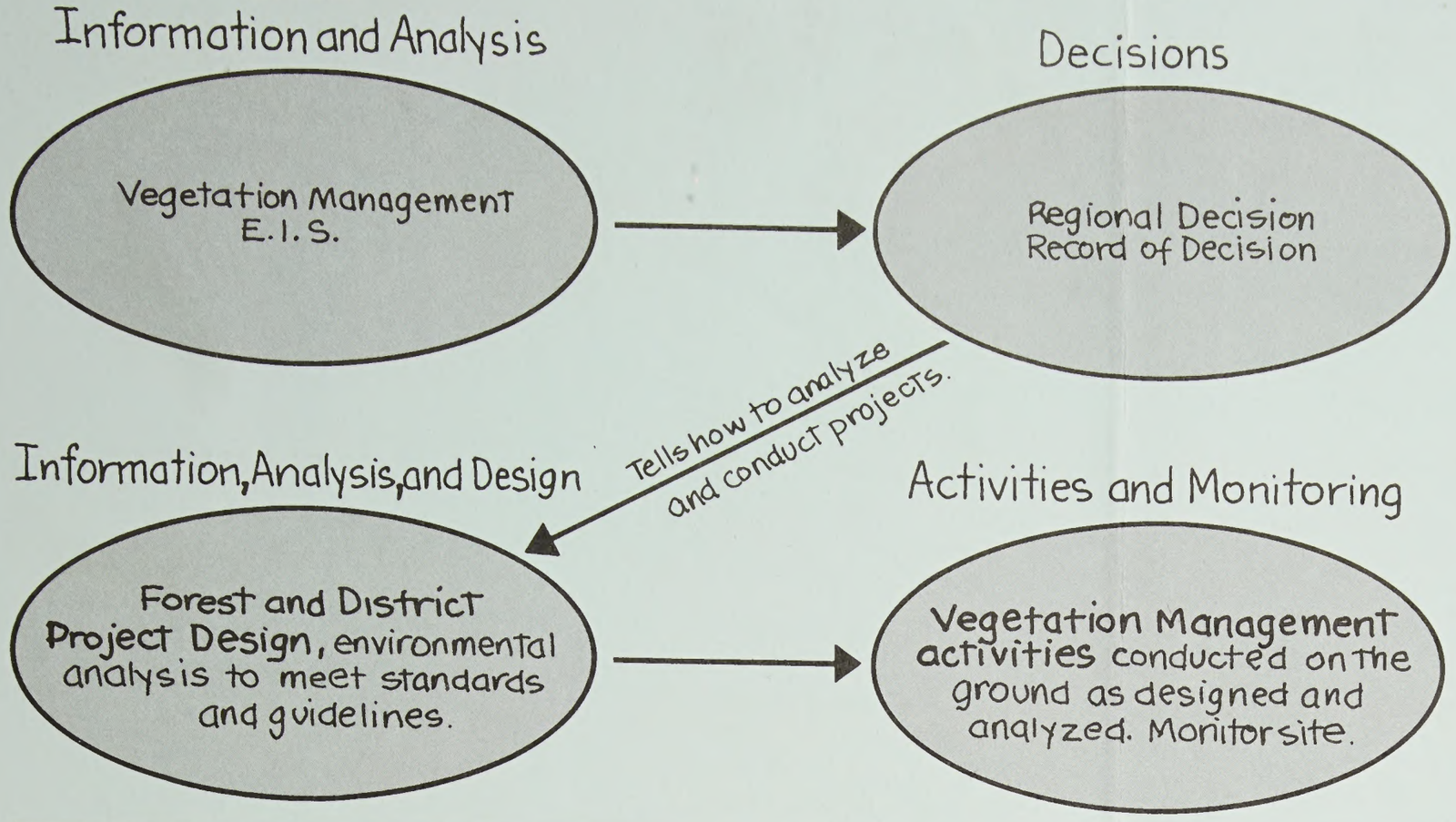
Forest Service scientists from many disciplines–often in cooperation with researchers from outside the agency–develop knowledge and technology to enhance the economic and environmental values of forest and rangeland. The research program seeks better ways to use land resources by developing ways to reduce costs, increase productivity, and protect environmental quality.

Research projects are commonly based on National Forest System needs. Information needs on vegetation management techniques and effects have been increasing, thus there is a concurrent need for a full array of vegetation management research.

In cases, vegetation management is the subject of study, in other cases, vegetation management is often needed to maintain research plots. Corners, markers, and access need to be clearly visible and functional and control measure are applied accordingly.

DECISIONS IN THE EIS AFFECT PROGRAMS

As discussed earlier, the vegetation management EIS represents TWO levels of decision-making that guide site-specific decisions made by project managers in the field.


Information and Analysis
Vegetation Management E.I.S.
Decisions
Regional Decision Record of Decision
Tells how to analyze and conduct projects.
Information, Analysis, and Design
Forest and District Project Design, environmental analysis to meet standards and guidelines.
Activities and Monitoring
Vegetation Management activities conducted on the ground as designed and analyzed. Monitor site.

In the vegetation management EIS, the selection of a final preferred alternative will provide; broad policy about methods available for managing vegetation; timing and amount of documentation required to plan and complete projects; and, direct overall emphasis of the vegetation management program.

All alternatives in this EIS also provide a **"decision-making process"** that explicitly guides the second-level of decision-making taking place on-the-ground. Whether vegetation management is a component of a larger project, or an entire project in itself, this process will be followed in the environmental analysis and design of the action being proposed.

This project level decision-making process is the factor that contributes most to the effect this EIS will have on future decision-making for Forest Service programs. It is made up of four steps:

- Analyzing a site
- Designing action(s)
- Executing the actions
- Monitoring the actions

The process is not new. It is essentially one of scientific management, and is already in place in many Forest Service activities.

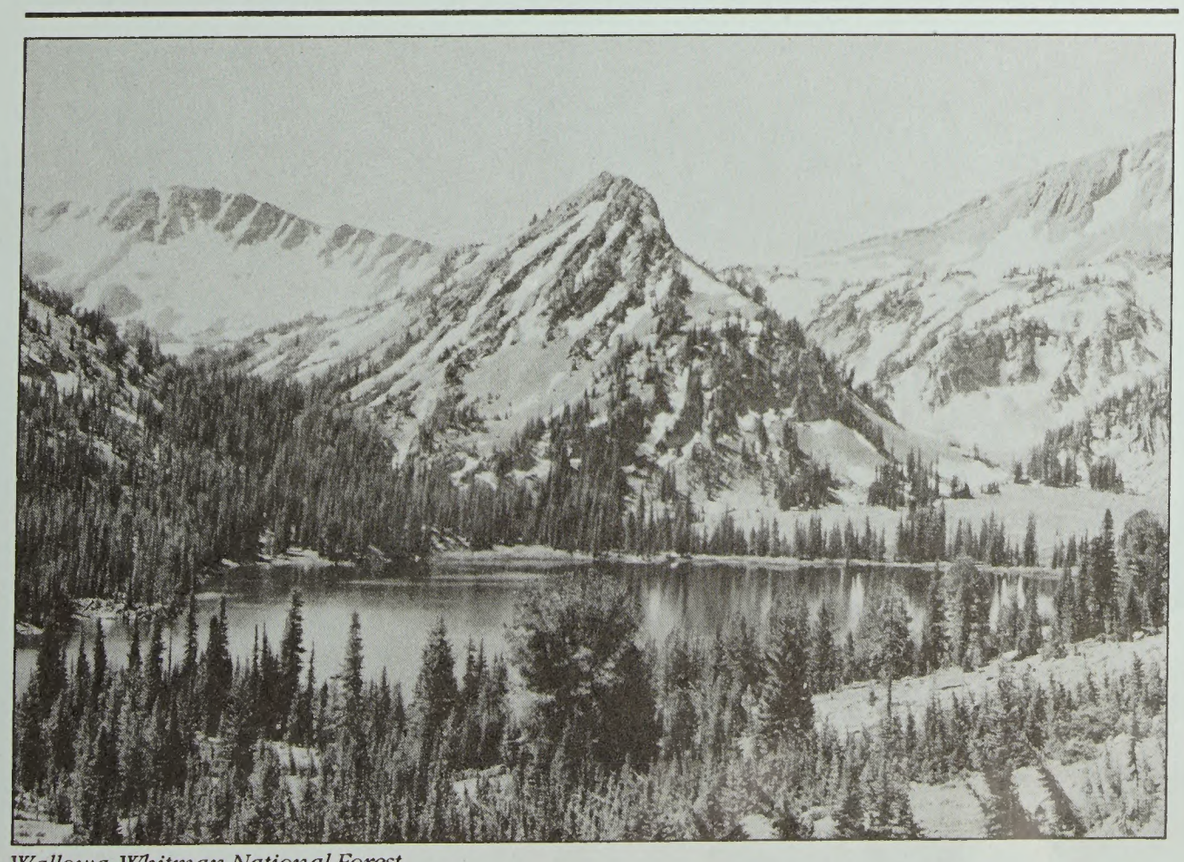
Following is a discussion of how each of the steps in the process would work at the project level. Throughout, you will see how implementing this EIS--no matter which alternative is selected--will affect the way day-to-day decisions are made in the program areas.

STEP ONE: ANALYSIS

In **site analysis**, the resources and ecological relationships of a site where an action is proposed will be evaluated in conjunction with management objectives. For example, a manager will carefully analyze an area to be planted with tree seedlings. One of the many considerations in establishing a plantation is sometimes the problem of competing or unwanted vegetation. The relationships between unwanted vegetation on the site–such as heavy brush and grass–and the damage it may cause to wanted species–in this case, the tree seedlings–will need to be established. This crucial part of site analysis is called establishing the **damage relationship**.

The **quality of information** available will be important in determining the significance of these relationships over the long- and short-term. What is known about the damage caused by the unwanted vegetation? About effectiveness of treatment measures? The consequences? This EIS establishes some information quality standards for managers to consider in determining the significance of the damage relationships.

Ultimately, analysis allows the manager to determine **if action is needed** by comparing the situation "on the ground" to the level of harm (in the damage relationship) that will trigger action. This trigger, which we call the "**action threshold**", is different for each alternative in the EIS. Each threshold reflects the purpose and theme of the individual alternative. When a final alternative is selected it will provide guidance for the project manager in determining if the action threshold has been reached or not.



Wallowa-Whitman National Forest.

STEP TWO: DESIGN

A number of dimensions guiding decisions about vegetation management are found in this EIS. During the design step, the manager will make a number of decisions integrating the results of the site analysis with techniques to achieve the desired result.

First, he or she will select a broad **strategy**, or over-all course of action designed to meet management objectives and prevent problems with competing vegetation. Strategies include PREVENTION (actions designed to prevent a problem before it occurs); CORRECTION (actions designed to correct a problem that already exists); and NO-ACTION (deliberately choosing to do nothing).

In the course of subsequent project-level decisions, a wide range of **methods and techniques** and ways to mitigate possible impacts will be considered. **Mitigation measures** that avoid, reduce, or compensate for potential damage that might occur as a result of the combination of strategy and techniques selected for the job at hand will be required.

Design criteria - selecting the most appropriate combination of strategy, methods, and mitigation measures:

In approaching any project involving management of unwanted or competing vegetation in any of the program areas, other choices are needed. The vegetation management EIS provides the professionals analyzing the individual site with criteria for selecting the most appropriate combination of strategy, methods, and mitigation measures for these choices. These choices, **which vary by alternative**, include:

Tree Planting in the National Forest.

Assurance of human health: this EIS presents a variety of ways of addressing the need for safeguarding human health. Some alternatives allow use of any methods or chemicals registered for use by the Environmental Protection Agency. Other alternatives are more restrictive, taking a more conservative approach. Depending on the alternative finally selected in the EIS, the project decision-maker will have a variety of tools available for project work.

Urgency: How important is it to act now? This EIS provides some guidance for decision-makers confronted with vegetation management needs. Some alternatives counsel quick application of available methods. Others endorse a slower response to a harmful situation. The standards and guidelines associated with the alternative chosen in the EIS will help managers make those important timing decisions on a case by case basis.

Costs, effectiveness, and duration of the treatment: these are all important decision-making criteria. The alternatives vary in the emphasis placed on the cost-effectiveness of the methods available, and on the lasting effectiveness (duration) of the treatments to be chosen. Again the standards and guidelines associated with the chosen alternative, will assist project managers in making decisions about cost, effectiveness and duration.

Environmental effects: the environmental effects of the methods, tools, projects design, and execution are major concerns in all alternatives. In all cases, this EIS requires managers to make choices that avoid long term environmental damage and impairment of long term productivity.

Economic and social effects: depending on the alternative selected in the final EIS, managers will attach different amounts of importance to these effects and the trade-offs between long- and short-term economic and social impacts.

Public involvement: public involvement has become an increasingly important issue for the Forest Service. After the final alternative is selected, public involvement concerning vegetation management issues will become part of a project manager's decision-making process. Publics will be involved at the local level, closest to where activities and actions are really happening on the ground.

Permitted methods and techniques: as mentioned, some alternatives will explicitly prohibit some methods and techniques–such as fire, or some or all herbicides–while others will permit selection from a full range of methods.

STEP THREE: EXECUTION

After the analysis is complete (again, usually in the form of an environmental assessment) and the project is designed, approval will be given by the local decision-maker. If approved, the project is conducted as designed, with well-trained personnel and proper equipment, under the conditions specified in the design of the project.

STEP FOUR: MONITORING

The monitoring step incorporated in all alternatives in this EIS requires the manager to systematically keep track of what happens to the site on a continuing basis. This provides early information for site analysis, allowing managers to treat unwanted vegetation problems before they reach crisis levels.

Monitoring lets managers determine more precisely the amount of competition from unwanted vegetation species that can be tolerated before the amount of damage becomes unacceptable. This information–plus information about the the analysis, design, and execution of the project–is used for future comparisons and decision-making.

In summary, this EIS affects the way decisions are made by project level decision-makers in the program areas through overall broad management emphasis provided by the selected alternative; and by carefully spelling out the steps managers must take in developing vegetation management projects. The decision-making process and its steps as described above is essentially a process of scientific management, and is already familiar to the Forest Service.

Site analysis; project design (including strategy, methods, techniques and mitigation measures); execution; and monitoring will be implemented by changes in existing responsibility, training, and instructions for field personnel. More explicit analysis, design, and monitoring requirements will also be key elements in making the process work.